

CLAIMS:

1. A network comprising a plurality of network nodes and one star node, which star node is provided for the direct coupling of at least two network nodes, and includes a plurality of star interfaces which are assigned to at least one network node and which include each an activity detector for detecting activities in the message signal coming from the assigned network node and for transferring the message signal from the assigned network node to the other star interfaces or from another star interface to the assigned network node in dependence on at least one activity.

2. A network as claimed in claim 1, characterized in that each star interface further includes a first and a second switching element, in that the first switching element in activated state passes a message from the assigned network node to the other star interfaces and the second switching element in active state passes a message from the other star interfaces to the assigned network node and in that the activity detector of a star interface activates the first switching element and deactivates the second switching element when a message occurs from the assigned network node and deactivates the first switching element and activates the second switching element when a message occurs from another network node.

3. A network as claimed in claim 2, characterized in that the activity detector includes an edge detector for detecting an edge or flank in the message signal and an activity detection circuit for establishing, based on the detected flank or edge, whether a send request, a message or the end of a message is present.

4. A network as claimed in claim 3, characterized in that the activity detection circuit includes a send request memory and an no-activity detection circuit, in that the send request memory changes its memory contents when an activity featuring a send request occurs, its memory contents form a control signal for the activation or deactivation of the switching elements and in that the no-activity detection circuit resets the send request memory after a certain period of time without the occurrence of an activity.

5. A network as claimed in claim 4, characterized in that the activity detection circuit includes an enable control signal which enables the no-activity detection circuit after a further activity featuring the send request.

6. A network as claimed in claim 2, characterized in that the activity detector

- includes a first and a second switching transistor, which are arranged in dependence on the message signal so that either the first or the second switching transistor is closed, and
- includes a capacitor which can be charged at least via the first switching transistor and discharged via the second switching transistor.

7. A network as claimed in claim 6, characterized in that the activity detector

- includes a third and a fourth switching transistor, which are arranged in dependence on the output signal so that either the third or the fourth switching transistor is closed,
- includes a first adjustable resistor connected in parallel to the third switching transistor and a second adjustable resistor connected in parallel to the fourth switching transistor,
- and includes an inverter coupled to the output,

in that during an activity featuring a send request, the charged capacitor is discharged via the second and fourth switching transistors and at the end of a message the capacitor is charged via the first and third switching transistors.

8. A star node in a network comprising a plurality of network nodes, which star node is arranged for providing a direct coupling of at least two network nodes and includes a plurality of star interfaces which are assigned to at least one network node and which include each an activity detector for detecting activities in the message signal coming from the assigned network node and for transferring the message signal from the assigned network node to the other star interfaces or from another star interface to the assigned network nodes in dependence on at least one activity.